

CLAIMS

What is claimed is:

- 5 1. A supporting spacer mounting structure for a field emission display for supporting a field emission display unit by using a cross-shaped supporting spacer structure and the positioning of a clipping arm, the structure comprising:
 - 10 a supporting spacer having a cross-shaped structure composed of a supporting unit and two clipping units; and
 - a clipping arm used for absorbing the supporting spacer and positioning it into a field emission display
 - 15 unit;wherein the positioning and supporting for supporting spacer of the field emission display are achieved by the two units.
- 20 2. The supporting spacer mounting structure for the field emission display of claim 1, wherein the field emission display is a display having a plurality of display units.
- 25 3. The supporting spacer mounting structure for the field emission display of claim 1, wherein the supporting

spacer is made of glass, ceramics or metal.

4. The supporting spacer mounting structure for the field
emission display of claim 1, wherein the supporting
5 spacer has a structure of “ ”, or having at least one
jointing seam.

5. The supporting spacer mounting structure for the field
emission display of claim 1, wherein the clipping arm
10 further comprises a positioning slot for positioning
and position-aligning for a clipping unit of the
supporting spacer , and the clipping arm does not has
to perform the operation of position-aligning for the
rotation angle.

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6. The supporting spacer mounting structure for the field
emission display of claim 1, wherein the clipping arm
further comprises a plurality of adsorption openings,
and the adsorption openings are installed on the same
20 side of the positioning slot.

7. The supporting spacer mounting structure for the field
emission display of claim 6, wherein the plurality of
the adsorption opening installed on the clipping arm

are used for vacuum-absorbing the side surfaces of the supporting units on the supporting spacer.

8. The supporting spacer mounting structure for the field emission display of claim 1 further comprising a monitoring lens for monitoring the positioning of the supporting spacer in the field emission display unit performed by the clipping arm.

9. A supporting spacer mounting method for a field emission display comprising:

starting;

initiating a clipping arm, vacuum-processing an adsorption opening on the clipping arm, and moving the clipping arm;

initiating a monitoring lens while initiating the clipping arm, to monitor the process of the operation;

absorbing a supporting spacer, moving the clipping arm to the supporting spacer, and performing a preliminary position-aligning by using a positioning slot, and absorbing the supporting spacer by using a plurality of adsorption openings installed on the positioning slot;

embedding a field emission display unit by the

clipping arm absorbing the supporting spacer and moving to the field emission display unit, and the monitoring lens being used for embedding the supporting spacer into the field emission display unit;
5 and
finishing.

10. The supporting spacer mounting method for the field emission display of claim 9, wherein the
10 supporting spacer employed in the step of absorbing the supporting spacer is cross-shaped and made of glass, ceramics or metal.

11. The supporting spacer mounting method for the
15 field emission display of claim 9, wherein in the step of embedding the field emission display unit, a field emission display is composed by a plurality of field emission display units.

20 12. The supporting spacer mounting method for the field emission display of claim 9, wherein in the step of absorbing the supporting spacer, the employed supporting spacer has a structure of “ ”, or having at least one jointing seam.

13. The supporting spacer mounting method for the field emission display of claim 9, wherein in the step of embedding the field emission display unit, a positioning slot is used for positioning one clipping unit of the supporting spacer in the process of the clipping arm absorbing the supporting spacer.

14. The supporting spacer mounting method for the field emission display of claim 9, wherein in the step of embedding the field emission display unit, the employed clipping arm comprises a plurality of adsorption openings install on it, and the plurality of the adsorption openings are positioned on the same side surface of the positioning slot, and the plurality of the adsorption openings are used for vacuum-absorbing the side surfaces of the supporting units on the supporting spacer.

15. The supporting spacer mounting for the field emission display of claim 9, wherein in the step of embedding the field emission display unit, the monitoring lens is used for monitoring the positioning of the supporting spacer in the field emission display

unit performed by the clipping arm.